PATENT ABSTRACTS OF JAPAN

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(54) PRODUCTION OF TONER

(57)Abstract:
PURPOSE: To directly, easily and cost effectively produce toner compsns. have excellent dispersion stability and narrow GSD and are capable of controlling particle forms over a wide range.
CONSTITUTION: A pigment dispersion composed of pigments and an ionic surfactant is produced in water. This pigment dispersion is sheared together with a polymer latex contg. a resin of a submicron size, the paired ionic surfactant having the charge polarity reverse from the charge polarity of this ionic surfactant and a nonionic surfactant to flocculate the particles formed of the pigments and the resin or to cause the hetero-solidification thereof, by which the compounded dispersion of a uniform solid content is formed. This compd. is agitated and heated to form electrostatically bonded flocs. The floe particles are heated to a temp. higher than the glass transition temp. of the resin, by which the fused toner particles are formed.

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* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]
[Claim 1] (i) The pigment dispersing element which consisted of electric charge control agents as a pigment, an ionic surfactant, and an arbitration component is manufactured underwater, (ii) It shears with the polymeric latex containing the counter ion nature surfactant and nonionic surfactant which have a charge polarity contrary to the resin of submicron size, and said ionic surfactant for this pigment dispersing element. By it The particle formed from a pigment, resin, and an electric charge control agent particle is condensed or hetero solidified, and the uniform combination distribution object of the solid content of a pigment, resin, and the electric charge control agent particle as an arbitration component is formed into water and a surfactant, (iii) (a) The floc of the toner size which stirred said sheared compound continuously, and heated it, and was combined in static electricity is formed, Or the thing for which the floc with which sheared the ((iii) b) aforementioned compound further, and joined together in static electricity, and it fully filled up is formed, Or the thing for which it shears continuously and the particle of the shape of a condensed flake is formed, heating the ((iii) c) aforementioned compound, (iv) The toner particle which heated and united said formed floc particle with temperature higher than Tg temperature of abbreviation resin is formed, And the manufacture approach of a toner constituent of having the controlled grain size and the selected gestalt including separating the following process of arbitration, and the (v) aforementioned toner particle from water and a surfactant, and drying the (vi) aforementioned toner particle.
[Claim 2] (i) The pigment dispersing element which consists of a pigment and an ionic surfactant is manufactured, (ii) the resin of the submicron size whose average volume particle size is about 0.05 to about 1 micrometer about said pigment dispersing element It shears with the counter ion nature surfactant and nonionic surfactant which have a charge polarity contrary to said ionic surfactant, and the included polymeric latex. By it The particle formed from a pigment and resin is condensed or hetero solidified, and a uniform solid content distribution object is formed, (iii) (a) The floc of the toner size which stirred and heated said sheared compound and was combined in static electricity is formed, Or the thing for which the floc which sheared the ((iii) b) aforementioned compound to the pan for 2- about 24 hours, combined it in static electricity, and was densely got blocked is formed, Or the thing for which the particle which sheared, heating the ((iii) c) aforementioned compound and the shape of a flake condensed is formed, And the manufacture approach of a toner constituent including obtaining the toner particle which heated and united with high. Tg, i.e., the glass transition temperature, of an abbreviation resin particle, temperature the floc particle combined in (iv) static electricity.

[Translation done.]